

# TRANSCRITICAL (CO<sub>2</sub>) FITTINGS

## TECHNICAL DATASHEET

AKER  
ADVANTAGE

### Technical Specifications:

- Material: Copper-Iron alloy (CuFe2P)
- Compatibility: R-744 (CO<sub>2</sub>), including transcritical and subcritical applications
- Pressure Rating: Suitable for pressures rated to 130 bar (1885 psi)
- Manufacturing Standards: S/NZS 1200, AS 4041 and AS/NZS 5149
- Connection Types: Brazing fittings (flare and compression are not suitable)

### Applications:

- Supermarket refrigeration (CO<sub>2</sub> transcritical booster systems)
- Cold chain logistics and storage facilities
- Industrial refrigeration (meat processing, dairy, and breweries)
- Heat pump and water heating systems using R-744

### Installation Guidelines:

- Use high-temperature silver brazing alloys (minimum 15% silver) for strong joints
- Purge with nitrogen during brazing to prevent oxidation and ensure a clean joint
- Verify system design pressures to ensure compatibility with transcritical operation

<b>SIZE RANGE</b>	From 3/8" up to 2-1/8"
<b>DN SIZE RANGE</b>	DN10 up to DN54
<b>MATERIAL</b>	Copper alloy CuFe2P
<b>OPERATING TEMPERATURE</b>	-196° C to 150° C
<b>MAXIMUM OPERATING PRESSURE</b>	130 bar / 13 MPa / 1885 psi at 150° C
<b>TUBE COMPATIBILITY</b>	Suitable for most commercially available copper–iron alloy pipe types